WHAT IS CLAIMED IS:

1. A vehicular lamp used in a vehicle, comprising:

a light source operable to emit light in accordance with a voltage given thereto;

a light-source controlling transistor operable to control power supplied to said light source by repeatedly switching whether or not said power is supplied to said light source;

a capacitor having one end grounded and another end at which a potential is changed like a saw-tooth by charging and discharging of said capacitor;

a capacitor controlling transistor operable to control a timing at which said charging and discharging of said capacitor is switched; and

a comparator operable to compare said potential at said another end of said capacitor to a reference voltage given thereto and to control a timing at which said light-source controlling transistor is turned on or off and a timing at which said capacitor controlling transistor is turned on or off in synchronization based on a result of comparison.

2. A vehicular lamp as claimed in claim 1, wherein said light-source controlling transistor and said capacitor controlling transistor are MOS transistors or transistors having base resistors,

a gate terminal of said light-source controlling transistor and a gate terminal of said capacitor controlling transistor, or said base resistors of said light-source controlling transistor and said capacitor controlling transistor are electrically connected,

a source terminal of said light-source controlling transistor and a source terminal of said capacitor controlling transistor are electrically connected, and

said capacitor controlling transistor allows a drain current smaller than that of said light-source controlling transistor to flow.

3. A vehicular lamp as claimed in claim 2, wherein said comparator includes:

a comparison transistor operable to receive said potential at said another end of said capacitor at its base terminal, receive said reference potential at its emitter terminal and control said timing at which said light-source controlling transistor is turned on or off and said timing at which said capacitor controlling transistor is turned on or off based on whether or not a potential difference between said potential at said another end of said capacitor and said reference potential is larger than a predetermined threshold;

a reference-value transistor, electrically connected to a collector terminal of said comparison transistor at its base terminal, operable to supply said reference potential to said emitter terminal of said comparison transistor, said reference potential being different between a state where said comparison transistor is on and a state where said comparison transistor is off;

a first reference resistor having one end to which a predetermined application voltage is applied and another end electrically connected to said collector terminal of said comparison transistor; and

a second reference resistor having one end to which said predetermined application voltage is applied and another end electrically connected to a collector terminal of said reference-value transistor, said gate terminal or base resistor of said light-source controlling transistor and said gate terminal or base resistor of said capacitor controlling transistor, said reference resistor having a smaller resistance value than that of said first reference resistor.

4. A vehicular lamp as claimed in claim 3, wherein said vehicular lamp serves as a taillight of said vehicle and a stop lamp that emits brighter light than said taillight, and further comprise a mode switching unit operable to switch a taillight mode in which said light-source controlling transistor is made to control said power supplied to said light source to make said vehicular lamp serve as said taillight and a stop lamp mode in which said light-source controlling transistor is not allowed to control said power supplied to said light source to make said vehicular lamp serve as said stop lamp, and

said mode switching unit applies a discharge-suppressing voltage to said another end of said capacitor to suppress said discharging of said capacitor in said stop lamp mode, to keep said light-source controlling transistor on.

5. A vehicular lamp as claimed in claim 4, wherein said mode switching unit supplies a supplied voltage in accordance with an input voltage given thereto to said light source, and

said mode switching unit further includes a protection circuit operable to make said capacitor generate a saw-tooth wave to control said power supplied to said light source, when said mode switching unit received said input voltage higher than said predetermined voltage in said stop lamp mode.